Complete Summary

GUIDELINE TITLE

American Cancer Society guidelines on nutrition and physical activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity.

BIBLIOGRAPHIC SOURCE(S)

Kushi LH, Byers T, Doyle C, Bandera EV, McCullough M, McTiernan A, Gansler T, Andrews KS, Thun MJ, American Cancer Society 2006 Nutrition and Physical Activity Guidelines Advisory Committee. American Cancer Society Guidelines on Nutrition and Physical Activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity. CA Cancer J Clin 2006 Sep-Oct;56(5):254-81; quiz 313-4. [198 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

It updates a previous version: Byers T, Nestle M, McTiernan A, Doyle C, Currie-Williams A, Gansler T, Thun M. American Cancer Society guidelines on nutrition and physical activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity. CA Cancer J Clin 2002 Mar-Apr;52(2):92-119.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Cancer including types of cancer in which weight, diet and physical activity may play a role, such as bladder cancer, breast cancer, cervical cancer, colorectal

cancer, endometrial cancer, gallbladder cancer, Hodgkin lymphoma, kidney cancer, lung cancer, ovarian cancer, multiple myeloma, pancreatic cancer, prostate cancer, stomach cancer, thyroid cancer, and upper aerodigestive tract cancers

GUIDELINE CATEGORY

Counseling
Evaluation
Prevention
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Gastroenterology
Geriatrics
Internal Medicine
Nursing
Nutrition
Obstetrics and Gynecology
Oncology
Pediatrics
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Dietitians
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Patients
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

- To advise health care professionals and the general public about dietary and other lifestyle practices that reduce cancer risk
- To serve as a foundation for the communication, policy, and community strategies of the American Cancer Society (ACS) and to affect dietary and physical activity patterns among Americans

TARGET POPULATION

Children, adolescents, and adults seen in primary care settings in the United States

INTERVENTIONS AND PRACTICES CONSIDERED

1. Individual choices regarding diet and physical activity patterns
    - Maintaining a healthy weight throughout life
    - Adopting a physically active lifestyle
    - Consuming a healthy diet, with an emphasis on plant sources
    - Limiting consumption of alcoholic beverages
2. Community actions that facilitate social and physical environments that support adoption of healthful nutrition and physically active behaviors

MAJOR OUTCOMES CONSIDERED

- Incidence of cancer
- Quality of life
- Cancer-related mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Committee reviewed evidence from human population studies and laboratory experiments published since the last release of the Guidelines in 2001. The Committee also considered other comprehensive reviews of diet, obesity, and physical inactivity in relation to cancer. For some aspects of nutrition, the most thorough review was the 1997 World Cancer Research Fund/American Institute for Cancer Research monograph; for others, such as physical activity, obesity, and fruit and vegetable consumption, there have been more recent comprehensive reviews.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The Committee reviewed evidence from human population studies and laboratory experiments published since the last release of the Guidelines in 2001. The Committee also considered other comprehensive reviews of diet, obesity, and physical inactivity in relation to cancer. For some aspects of nutrition, the most thorough review was the 1997 World Cancer Research Fund/American Institute for Cancer Research monograph; for others, such as physical activity, obesity, and fruit and vegetable consumption, there have been more recent comprehensive reviews. In weighing the evidence from randomized controlled trials (RCTs), the Committee considered the findings in relation to the design of the trial, the specific question being addressed, and the importance of the trial results in the context of other evidence from human populations. Prospective cohort studies were weighted more heavily than case-control studies, especially when results were available from several cohorts. Population-based case-control studies with at least 200 cases of cancer were considered more informative than smaller or hospital-based case-control studies. Studies that adjusted for total energy intake, considered other dietary factors, and controlled for other known risk factors were considered more credible than those that failed to meet these criteria.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

These Guidelines, updated in 2006 by the American Cancer Society Nutrition and Physical Activity Guidelines Advisory Committee, are based on synthesis of the current scientific evidence on diet and physical activity in relation to cancer risk.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

In addition to recommendations regarding individual choices related to weight control, physical activity, and diet, the American cancer Society (ACS) Guidelines underscore what communities can and should do to facilitate healthy eating and physical activity behaviors.

ACS Guidelines on Nutrition and Physical Activity for Cancer Prevention

ACS Recommendations for Individual Choices

Maintain a healthy weight throughout life.

- Balance caloric intake with physical activity.
- Avoid excessive weight gain throughout the life cycle.
- Achieve and maintain a healthy weight if currently overweight or obese.

Adopt a physically active lifestyle.

- Adults: engage in at least 30 minutes of moderate to vigorous physical activity, above usual activities, on 5 or more days of the week. Forty-five to 60 minutes of intentional physical activity are preferable.
- Children and adolescents: engage in at least 60 minutes per day of moderate to vigorous physical activity at least 5 days per week.

Consume a healthy diet, with an emphasis on plant sources.

- Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
- Eat five or more servings of a variety of vegetables and fruits each day.
- Choose whole grains in preference to processed (refined) grains.
- Limit consumption of processed and red meats.

If you drink alcoholic beverages, limit consumption.

- Drink no more than one drink per day for women or two per day for men.

ACS Recommendations for Community Action

Public, private, and community organizations should work to create social and physical environments that support the adoption and maintenance of healthful nutrition and physical activity behaviors.

- Increase access to healthful foods in schools, worksites, and communities.
- Provide safe, enjoyable, and accessible environments for physical activity in schools, and for transportation and recreation in communities.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Healthy diet, physically active lifestyle, and absence of tobacco use contribute to substantially reduce the lifetime risk of developing cancer.

POTENTIAL HARMS

Men over 40, women over 50, and people with chronic illnesses and/or established cardiovascular risk factors should consult their physicians before beginning a vigorous physical activity program. Stretching and warm-up periods should be part of each exercise session to reduce risk of musculoskeletal injuries.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- For many issues concerning nutrition and cancer, the evidence is not definitive, either because the published results are inconsistent, and/or because the methods of studying nutrition and chronic disease in human populations are still in evolution. Part of the uncertainty has resulted from studies that focus on specific nutrients or foods in isolation, thereby oversimplifying the complexity of foods and dietary patterns; the importance of dose, timing, and duration of exposure; and the large variations in nutritional status among human populations. Nutritional research is equally challenging in randomized controlled trials (RCTs), generally considered the gold standard for scientific conclusions. Studies may fail to find an effect if the intervention begins too late in life, is too small, or if the follow up is too short for a benefit to appear. No single trial can resolve all of the questions that are relevant to the potential effects of nutrition throughout the lifespan. Moreover, many important questions about how diet, physical activity, and obesity relate to cancer cannot presently be addressed in RCTs. For example, randomized trials of weight loss in relation to cancer risk are severely constrained by the current lack of effective behavioral or pharmacologic approaches to help people lose weight and sustain a healthy weight. The cost and difficulty of randomized trials to determine the long-term consequences of interventions that begin in infancy and extend for many years preclude long-term experimental interventions. Interventions are ethical only if they can plausibly improve the health of the participants. Although it might be

easier to motivate people to increase their weight by consuming more calories and/or fat and by decreasing their physical activity, such studies are clearly unethical.
- Inferences about the many complex interrelationships among body weight, physical activity, diet, and cancer risk are therefore based, for the most part, on a combination of clinical trials and observational studies coupled with advancing understanding of the biology of cancer. These Guidelines are based on the totality of evidence from all sources, taking into account both the potential health benefits and possible risks from the intervention. No diet or lifestyle pattern can guarantee full protection against any disease; the potential health benefit represents a decreased likelihood that the disease will occur, not a guarantee of total protection.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Patient Resources

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2002 Mar (revised 2006 Sep)

GUIDELINE DEVELOPER(S)

American Cancer Society - Disease Specific Society

SOURCE(S) OF FUNDING

American Cancer Society

GUIDELINE COMMITTEE

American Cancer Society 2006 Nutrition and Physical Activity Guidelines Advisory Committee

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Cancer Society Web site.

Print copies: Available from the American Cancer Society, 250 Williams St., Suite 600, Atlanta, GA 30303; Web site: www.cancer.org.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

The following are available:

- American Cancer Society guidelines on nutrition and physical activity for cancer prevention. Available from the American Cancer Society (ACS) Web site.

Also available by calling 1-800-ACS-2345.

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NGC STATUS

This NGC summary was completed by ECRI on January 13, 2004. It was updated by ECRI Institute on February 4, 2008. The updated information was verified by the guideline developer on February 29, 2008.

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